

Adit 3104

QUICK START GUIDE



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QUICK START GUIDE

In this Guide

- Unpacking and Inspection
- Installation Environment
- User Safety
- Installation
 - Compliant Installation
 - Ferrite Beads
 - Wall Mounting
 - Rack Mounting (Optional Feature)
 - Adit 3104, 3200 and 3400 Battery Backup
- Chassis Overview
- Interface Connectors
- Reset Button
- Alarm/Status LEDs
- Web-Based Management
- Setting up a CLI Connection
- Log in
- Key Enabled Software Features
- Basic Configuration
 - Setup Adit for access via Web-Browser
 - Restore Factory Defaults
 - Modify Default Admin User
 - Configure Ethernet WAN Interface
 - Configure Serial1 as WAN
 - Configure the Adit 3104 as a SIP Line Gateway

Unpacking and Inspection

WARNING! OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES.

1. Inspect containers for damage during shipment. Report any damage to the freight carrier for possible insurance claims.
2. Compare packing list with office records. Report any discrepancies to the office.
3. Open shipping containers, be careful not to damage contents.
4. Inspect contents and report any damage.
5. If equipment must be returned for any reason, carefully repack equipment in the original shipping container with original packing materials if possible.
6. If equipment is to be installed later, replace equipment in original shipping container and store in a safe place until ready to install.

Electrostatic Discharge (ESD) Precautions

ESD can damage processors, circuit cards, and other electronic components. Always observe the following precautions before installing a system component.

1. Do not remove a component from its protective packaging until ready to install it.
2. Wear a wrist grounding strap and attach it to a metal part of the system unit before handling components. If a wrist strap is not available, maintain contact with the system unit throughout any procedure requiring ESD protection.



WARNING! INTEGRATED CIRCUITS (ICs) ARE EXTREMELY SUSCEPTIBLE TO ELECTROSTATIC DISCHARGE. UNLESS YOU ARE A QUALIFIED SERVICE TECHNICIAN WHO USES TOOLS AND TECHNIQUES THAT CONFORM TO ACCEPTED INDUSTRY PRACTICES, DO NOT HANDLE ICs.

The ESD warning label appears on packages and storage bags that contain static-sensitive products and components.

Installation Environment

The environment in which you are installing the Adit 3000 must meet the following conditions:

- Operating temperature range: 32° to 104° F (0° to 40° C)
- Storage temperature range: -40° to 158° F (-40° to 70° C)
- Maximum operating altitude: 10,000 ft. (3,048 m)
- Maximum non-operating altitude: 40,000 ft. (12,192 m)
- Relative humidity (non-condensing) range: 0 to 95%

WARNING! THE ADIT 3000 IS DESIGNED FOR WALL AND RACK MOUNTING ONLY. IT IS NOT DESIGNED FOR DESKTOP USE.

User Safety

CAUTION! WHEN USING YOUR TELEPHONE EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY TO PERSONS, INCLUDING THE FOLLOWING:

- Do not use this product near water for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- Refer to the installation section of this manual for a safe and proper installation procedure. All wiring external to this equipment should follow the current provision of the National Electrical Code.

Installation

The following are instructions for a compliant installation of the Adit 3104. Please note the following warnings, before installing the unit.

For wall and rack mount instructions, use the links listed below to the appropriate section:

- [Installation](#)
- [Wall Mounting](#)
- [Rack Mounting \(Optional Feature\)](#)

WARNING! OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES. SEE *Electrostatic Discharge (ESD) Precautions* ON PAGE 4 FOR DETAILED INFORMATION.

WARNING! THE ADIT 3104 DS1 NETWORK INTERFACE PORTS ARE CERTIFIED WITH ACTA, INDUSTRY CANADA AND UL FOR DIRECT CONNECTION TO PUBLIC DIGITAL NETWORKS. TO PREVENT EQUIPMENT DAMAGE FROM LIGHTNING SURGES, AC INDUCTION OR POWER LINE CONTACT, UTILIZE LISTED PRIMARY PROTECTORS AT THE BUILDING ENTRANCE WITH MINIMUM 4 OHM CURRENT-LIMITING AND MAXIMUM 600V IMPULSE BREAKDOWN AT 1000V/USEC. THE ADIT 3104 DS1 PORTS COME EQUIPPED WITH SECONDARY OVERVOLTAGE AND OVERCURRENT PROTECTION. THE INSTALLATION IS REQUIRED TO MEET LOCAL OR NATIONAL ELECTRIC CODES FOR COMMUNICATION SYSTEMS.

WARNING! THE ADIT 3104 FXS INTERFACE PORTS ARE INTENDED TO SERVE INDOOR COMMUNICATION CONDUCTORS ONLY. OVERVOLTAGE AND OVERCURRENT PROTECTION IS PROVIDED TO PREVENT EQUIPMENT DAMAGE FROM LIGHTNING SURGES OR AC POWER LINE CONTACT INSIDE BUILDINGS. THE FXS PORTS ARE NOT SUITABLE FOR CONNECTION TO EXPOSED OUTDOOR COMMUNICATION CONDUCTORS.

Compliant Installation



NOTE: It is important the DS1/E1 Network Interface Cables are secured separately from the power and Signal Cables.

1. Inspect the unit.
2. Mount the unit, see *Wall Mounting* on page 7, or *Rack Mounting (Optional Feature)* on page 8 for detailed instructions.
3. Ground the unit. See *Grounding the Unit* on page 12.

WARNING! THE ADIT 3104 IS REQUIRED TO BE PERMANENTLY GROUNDED FOR THE PROTECTION OF USERS AND SERVICE PERSONNEL. REFER TO *Grounding the Unit* ON PAGE 12 FOR DETAILED INSTRUCTIONS.

4. Connect DS1 (T1), Ethernet and Amphenol connectors as needed.
Note: if Amphenol (25-pin telco) connector is used, a ferrite bead is required to meet compliance (see graphic above).
5. Connect RS-232 connector and open Terminal Emulator software on your PC. Note: With this running first, you can monitor the boot process.
6. Connect Power to the unit.
7. Monitor the boot process on your PC, when complete the status light should be green.
8. For any software enabled features, enter the key command. See the **key** command in the Adit 3000 CLI Reference Manual, for detailed information.
9. To verify use the **show version** command.
10. Now you can proceed to provisioning the unit. See *Basic Configuration* on page 23 for information.

Ferrite Beads

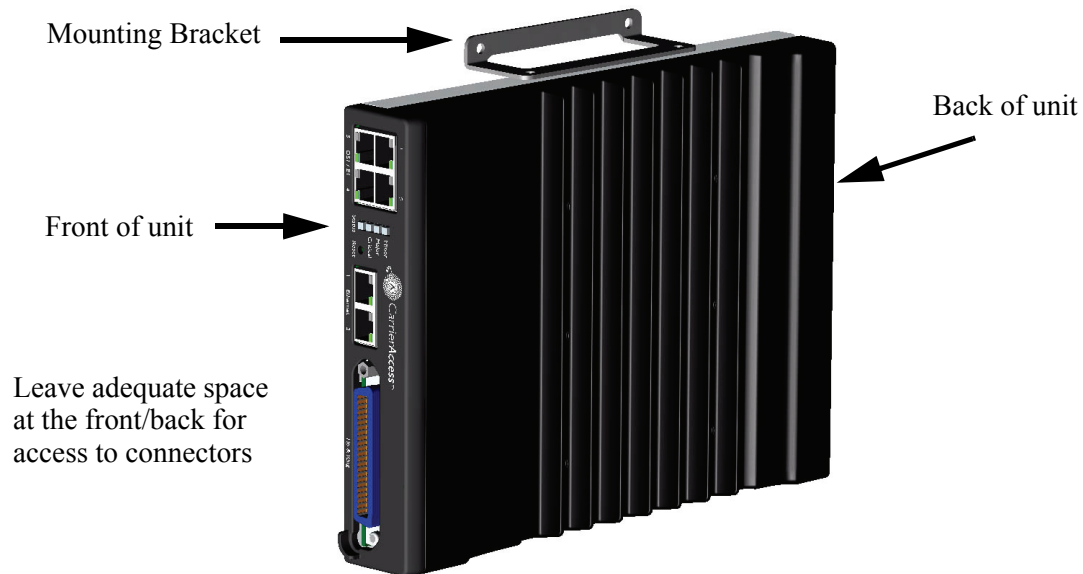
To be compliant with EMI standards, a ferrite bead is required on the following cable:

Ferrite bead shipped with Adit chassis:

Ferrite Provided	Part Number	Intended For
1 large	P/N 010-0051	25-pair Telco cable (connector on the front of the Adit).

Wall Mounting

Before beginning the mounting process, verify that the installation area is a stable environment, clean and free from extremes of temperature, shock, vibration and EMI. See *Installation Environment* on page 4.



The Adit 3000 is delivered with mounting brackets that can easily be attached for quick and easy wall mounting, as shown in the illustration above.

To install the unit to the wall:

1. Attach the wall mount brackets to the Adit 3000, with wall attachment flange pointing away from the unit, as shown above. Attach with 4 screws provided (2 for each bracket).
2. Mount the unit to the wall using appropriate mounting screws (not included). Note: it is acceptable to mount on drywall with suitable anchor-type mounting screws.

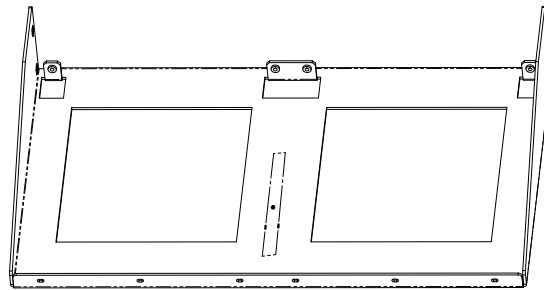
NOTE: The Adit 3000 must be mounted with the brackets on the top and bottom, as shown above.

Rack Mounting (Optional Feature)

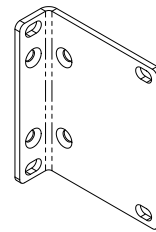
NOTE: Rack mounting kits are available for both 19 and 23 inch racks. 1 Rack Unit (RU) of spacing is required above the Adit 3000 in the Rack Mount Unit.

To rack mount the Adit 3000, follow the instructions below:

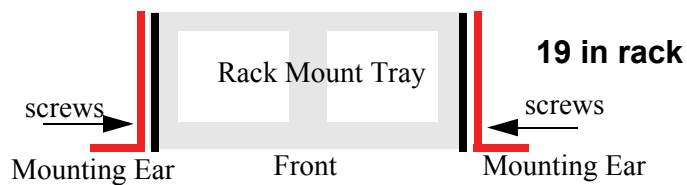
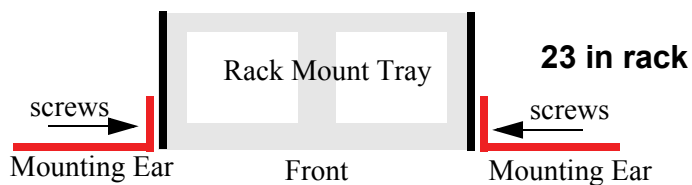
1. Attach bracket ears to Rack Mounting Tray using four #10-32 x 1/4" screws on each side. The Mounting Ears can be used for both a 19 or 23 inch rack. The drawing below shows a top view of the 2 versions.



Rack Mounting Tray

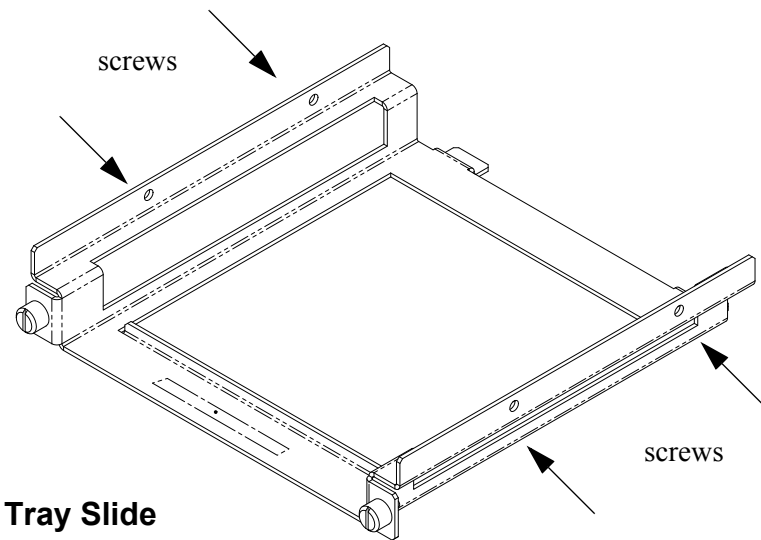


Mounting Ear

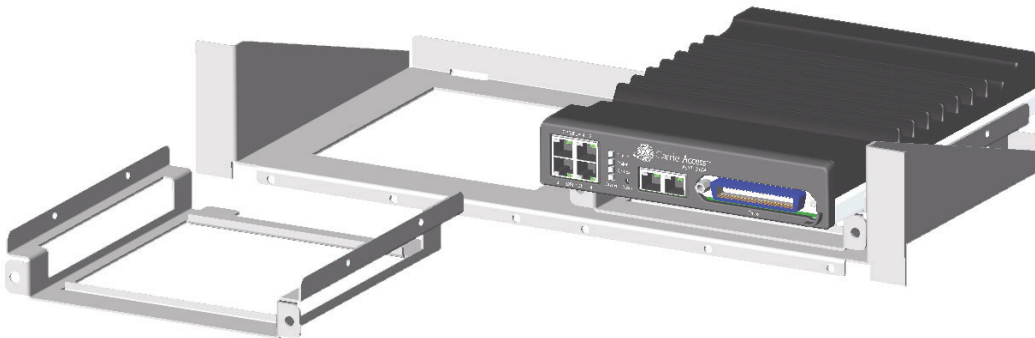


2. Remove wall mount and screws from Adit 3000 unit.

3. Place the Adit 3000 on the Tray Slide and attach with the 4 screws removed in step 2.



4. Slide the assembled piece (Adit 3000 and Tray Slide) onto the installed Rack Mounting Tray.



5. Secure the Tray Slide to the Rack Mounting Tray with the attached screws on the Tray Slide.

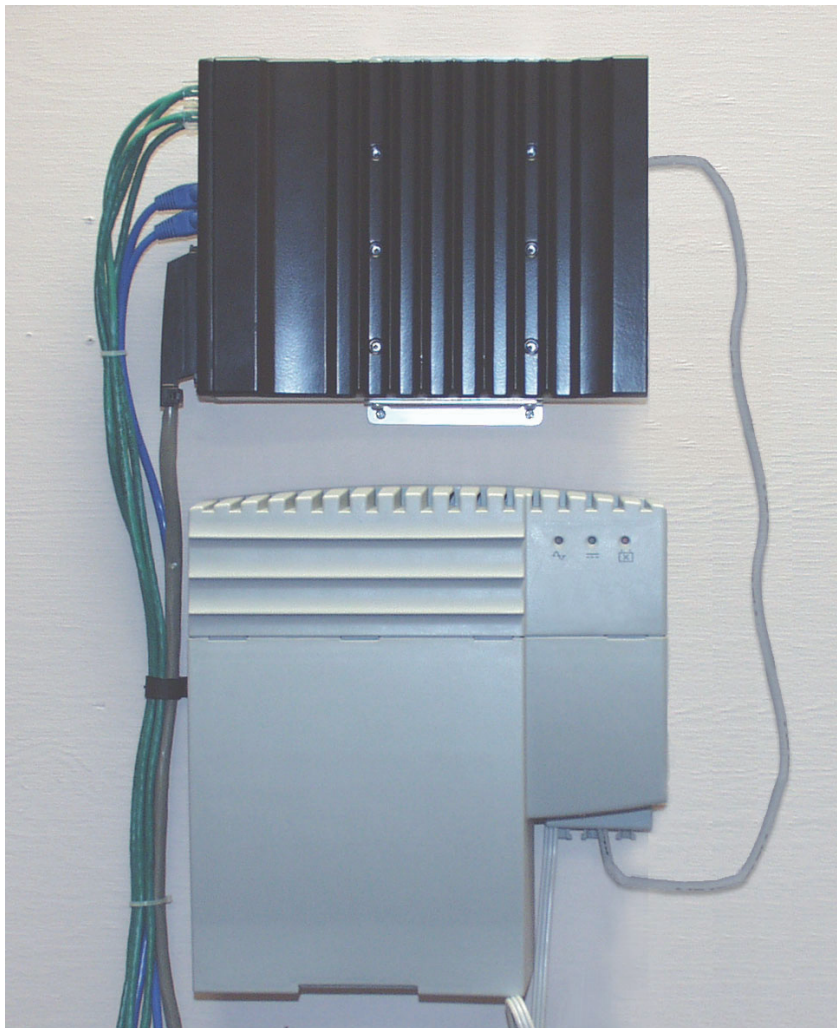
NOTE: the mounting brackets are designed to not allow units to be mounted closer than recommended.

Adit 3104, 3200 and 3400 Battery Backup

Note: This is an Optional Feature.

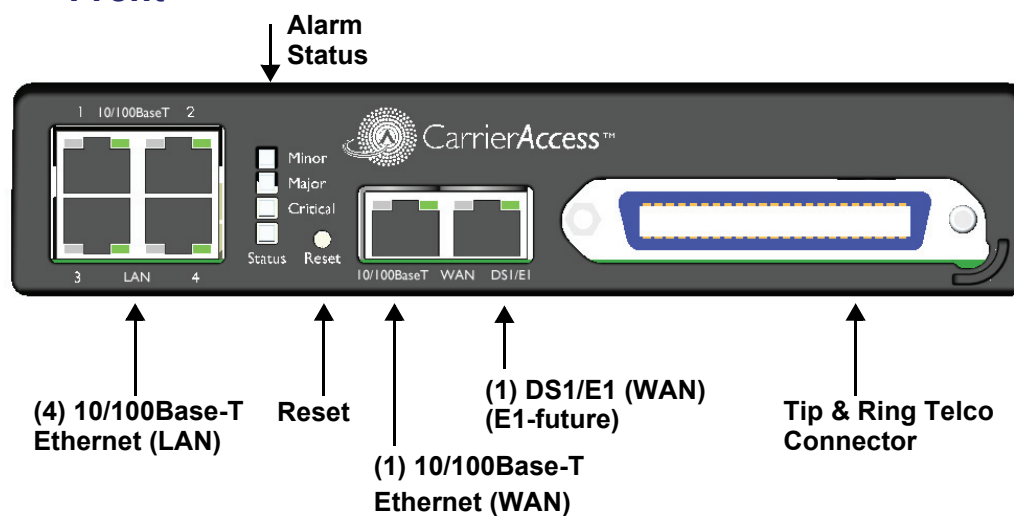
The Adit 3104, 3200 and 3400 Battery Backup (P/N 730-0132), is a wall-mount battery backup unit to provide up to 8 hours battery backup.

Please see the Battery Backup User Manual for product information and installation instructions, which is provided with unit.

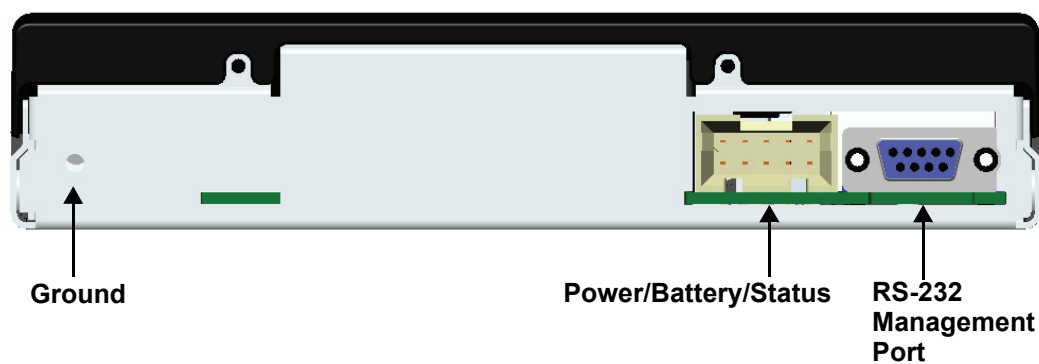


Chassis Overview

Front



Back



Interface Connectors

Front of Adit

- (1) DS1 WAN port (RJ-48C). Note: E1 will be in a future release.
- (1) 10/100Base-T WAN port (RJ-45)
- (4) 10/100Base-T switched LAN ports (RJ-45)
- Tip & Ring Analog Interface equipped with standard 25-pair Telco Connector

Back of Adit

- RS-232 craft port connector for local management
- Power input connector
- Ground connector

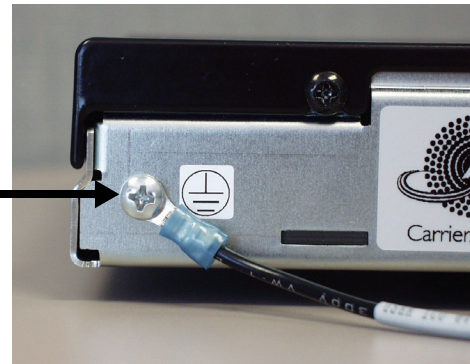
Grounding the Unit

WARNING! THE ADIT 3104 IS REQUIRED TO BE PERMANENTLY GROUNDED FOR THE PROTECTION OF USERS AND SERVICE PERSONNEL.

Chassis ground is located on the back of the unit.
To ground the unit:

1. Connect a minimum 14 AWG ground wire with a #8 ring tongue terminal (not included) to the chassis ground on the back of the unit. Secure with the 8-32 screw and lock washer provided.
2. Connect the opposite end of the ground wire to a suitable earth grounding point such as a building grounding electrode, metal water pipe, or metal building structure that is in compliance with article 250 of NEC.

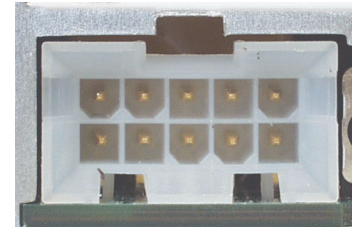
**Chassis
Ground**



Power

The Adit 3000 is powered by a limited -48 VDC Power source. The following options are available:

- AC/DC Converter
- Battery Backup module

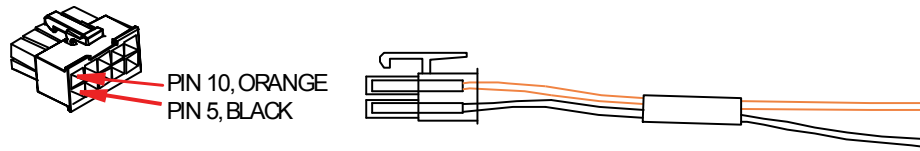


AC/DC Converter

An AC/DC Converter generates 48VDC from any worldwide AC power source.

To connect AC power:

1. Plug power connector from AC/DC converter into rear of Adit 3000.
2. Connect AC/DC converter to wall outlet.
3. A green light should appear on the Status LED on the front of the unit.



CAUTION! INCORRECT WIRING OF CORD MAY CAUSE EXTERNAL FUSE FAILURE.

WARNING! POSSIBLE SHOCK HAZARD EXISTS, PLEASE FOLLOW INSTRUCTIONS CAREFULLY.

To connect -48 VDC power:

1. Wire appropriate connector to open end of the DC Power cable.
Orange = -48 Black = Ground (+)
2. Plug the DC power connector in the -48 VDC input power connector.
3. Apply power to connector from -48 VDC power source.
4. A green light should appear on the Status LED on the front of the unit.

WARNING! EXTERNAL FUSE PROTECTION IS REQUIRED ON THE 48VDC INPUT WHEN CONNECTED TO A DC POWER SOURCE NOT SUPPLIED BY CARRIER ACCESS.

Fuse Recommendations, or equivalent:

Recommended Fuse	AMP Rating
Littelfuse 48101.5	1.5 Amp
Bussman GMC-1.5A	1.5 Amp

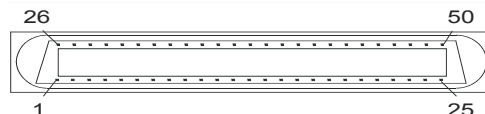
Battery Connection

The Adit 3000 Battery connection is provided for Battery Backup. See *Adit 3104, 3200, 3300 and 3400 Battery Backup* on page 8 for additional information.

25-Pair Telco Connector

Tip and Ring Analog Interfaces equipped with standard 25-pair Telco Connectors (female) for connection to key systems, fax machines, modems, and PBXs.

Circuit connections are made at the 25-pair telco connectors. A standard 25-pair telephone cable with RJ-21X wiring and a male D-type connector at the Adit 3000 end is required. The pinouts are as follows:

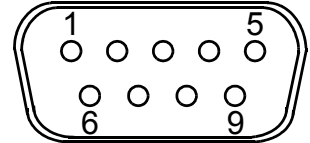


Pair	Pin	Function	Color Code	Pair	Pin	Function	Color Code
1	26 1	Tip Channel 1 Ring Channel 1	White/Blue Blue/White	14	39 14	Tip Channel 14 Ring Channel 14	Black/Brown Brown/Black
2	27 2	Tip Channel 2 Ring Channel 2	White/Orange Orange/White	15	40 15	Tip Channel 15 Ring Channel 15	Black/Slate Slate/Black
3	28 3	Tip Channel 3 Ring Channel 3	White/Green Green/White	16	41 16	Tip Channel 16 Ring Channel 16	Yellow/Blue Blue/Yellow
4	29 4	Tip Channel 4 Ring Channel 4	White/Brown Brown/White	17	42 17	Tip Channel 17 Ring Channel 17	Yellow/Orange Orange/Yellow
5	30 5	Tip Channel 5 Ring Channel 5	White/Slate Slate/White	18	43 18	Tip Channel 18 Ring Channel 18	Yellow/Green Green/Yellow
6	31 6	Tip Channel 6 Ring Channel 6	Red/Blue Blue/Red	19	44 19	Tip Channel 19 Ring Channel 19	Yellow/Brown Brown/Yellow
7	32 7	Tip Channel 7 Ring Channel 7	Red/Orange Orange/Red	20	45 20	Tip Channel 20 Ring Channel 20	Yellow/Slate Slate/Yellow
8	33 8	Tip Channel 8 Ring Channel 8	Red/Green Green/Red	21	46 21	Tip Channel 21 Ring Channel 21	Violet/Blue Blue/Violet
9	34 9	Tip Channel 9 Ring Channel 9	Red/Brown Brown/Red	22	47 22	Tip Channel 22 Ring Channel 22	Violet/Orange Orange/Violet
10	35 10	Tip Channel 10 Ring Channel 10	Red/Slate Slate/Red	23	48 23	Tip Channel 23 Ring Channel 23	Violet/Green Green/Violet
11	36 11	Tip Channel 11 Ring Channel 11	Black/Blue Blue/Black	24	49 24	Tip Channel 24 Ring Channel 24	Violet/Brown Brown/Violet
12	37 12	Tip Channel 12 Ring Channel 12	Black/Orange Orange/Black	25	50 25	Reserved	Violet/Slate Slate/Violet
13	38 13	Tip Channel 13 Ring Channel 13	Black/Green Green/Black				

RS-232 Craft Port (Female DB-9)

The RS-232 craft port connector (female) is for connection to an external PC or Hayes-compatible modem for local or remote configuration, management, and performance monitoring using the Adit 3000 Command Line Interface (CLI).

The RS-232 craft port connects via a female DB-9 connector on the Adit 3000.



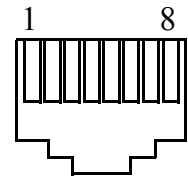
The pinouts are as follows:

Pin Number	Direction	Description
1	Outbound	Carrier Detect
2	Outbound	Receive Data
3	Inbound	Transmit Data
4	Inbound	Data Terminal Ready
5	N/A	Signal Ground
6	Outbound	Data Set Ready
7	Inbound	Request to Send
8	Outbound	Clear to Send
9	N/C	Not connected

DS1/E1 Connection Ports

Each DS1/E1 connection port is equipped with a standard RJ-48C (female) on the Adit 3000 unit. Note: E1 will be available in a future release.

The pinouts are as follows:



DS1/E1 RJ-48C

The pinouts are as follows:

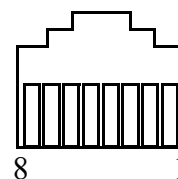
Pin	Name	Description
1	Receive Ring	Receive from DS1 network
2	Receive Tip	Receive from DS1 network
3	N/C	Not connected
4	Transmit Ring	To DS1 network
5	Transmit Tip	To DS1 network
6-8	N/C	Not connected

The LEDs are as follows (left LED only):

State	Description
Off	Off line
Green	Normal
Red	Loss of Signal (LOS)
Yellow	Bipolar Violation (BPV)
Flashing Green	Loopback active
Flashing Yellow	Yellow Alarm (Remote Alarm Indication)
Flashing Red (Slow)	Loss of Frame (LOF) or Alarm Indication Signal (AIS)
Flashing Red (Fast)	Self-test Failure

10/100Base-TX Ethernet

The 10/100Base-TX Ethernet (female) ports provide connectivity for Router WAN and/or LAN ports and for management connection via Telnet and/or SNMP to a Network Management System.



Ethernet (RJ-45)

The pinouts are as follows:

Note: This is a hub pinout, you will need a straight cable to connect to a PC.

Pin	Name	Description
1	Receive +	Receive from network
2	Receive -	Receive from network
3	Transmit +	Transmit to network
4-5	N/C	Not connected
6	Transmit -	Transmit to network
7-8	N/C	Not connected

The LEDs are as follows:

LED	State	Description
Left LED	The left LED shall show Link Status.	
	Off	Link Down
	Green	Link Up
	Flashing Green	Traffic on Link
Right LED	Yellow	Collision status
	The right LED shall indicate Link Speed.	
	Off	10 Mbit/sec, down or not connected
	Green	100 Mbit/sec

Reset Button

The system can be reset by pressing the reset button located on the front panel.



Alarm/Status LEDs

LED	State	Description
Critical	Off	No critical alarms present
	Red	Critical alarms present. Critical alarms include: user-configured manor environmental inputs.
Major	Off	No major alarms present
	Red	Major alarm present. Major alarms include: user-configured manor environmental inputs, DS1 short, DS1 open, DS1 facility alarm, DS1 RAI, DS1 AIS, DS1 LOF, DS1 LOS, WAN fault, Ethernet fault and dead card alarms.
Minor	Off	No minor alarms present
	Red	Minor alarms present. Minor alarms include: user-configured minor environmental inputs, DS1 excessive line code violations.
Status	Off	No power to system
	Green	Application running, no detected system problems.
	Green Flashing	Power-On Self Test (POST) successful. System booted. Loading Application.
	Green/Yellow	Flashing alternate colors. Application Self Test in Process.
	Yellow	Yellow while booting. If this stays a steady yellow the Power-On Self Test (POST) failed.
	Yellow Flashing	Power-On Self Test (POST) In Process.
	Red	System Failure

Web-Based Management

The web-based management interface allows you to control various system parameters. The interface is accessed through a web browser.

To access the management console:

NOTE: The following assumes that you have connected the PC to the LAN port of the Adit 3104.

1. Launch a web browser on your PC in the LAN to which the Adit 3104's LAN port is connected. Note: If connection to the 3104 is to be through an Ethernet or T1 WAN, the remote admin WAN access must be enabled with the following command sequence:

Command	Description
<code>Username: admin</code> <code>Password: *****</code>	Log into the system (username and password).
<code>Adit 3104> enable</code>	Enter the Privileged mode.
<code>Password: *****</code>	Enter password for the Privileged mode.
<code>#configure terminal</code>	Enter the Configuration mode.
<code>(config)# remote-admin web</code> <code>primary-port enable</code>	Enable remote web admin.

2. Type the Adit 3104's IP address or name in the address bar.
Example: `http://192.168.1.1`
 - Default IP address is **`http://192.168.1.1`**
Note: to display the current IP address of the systems, use the following CLI command:
`#show interface ethernet 1` (LAN)
`#show interface ethernet 2` (Eth WAN)
3. Login to the unit.
Enter User Name and Password. Note: these setting should be changed from the default settings after the initial login.
 - Default user name is **admin**
 - Default password is **admin 123**

NOTE: After a few minutes of inactivity, the session will automatically timeout and the operator will be required to log in to continue the session.

WARNING! IF YOUR USER NAME AND PASSWORD ARE SET TO THE DEFAULT SETTING, IT IS RECOMMENDED THAT YOU MODIFY THEM FOR SECURITY PURPOSES.

Setting up a CLI Connection

A CLI connection will require the LAN or WAN IP address of the unit. Note: If the WAN IP address is used, the remote admin WAN access must be enabled with the following command sequence:

Command	Description
Username: admin Password: *****	Log into the system (username and password).
Adit 3104> enable	Enter the Privileged mode.
Password: *****	Enter password for the Privileged mode.
#configure terminal	Enter the Configuration mode.
(config)# remote-admin web primary-port enable	Enable remote web admin.

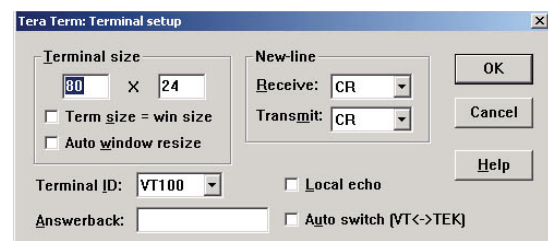
NOTE: For Adit 3104 CLI commands see the *Adit 3000 CLI Reference Manual*. This is a separate document and can be found on the CD that is provided with the product, or on the Carrier Access customer website.

To connect with CLI, set up the connection:

- If connecting via the Ethernet 100Base-TX connection, use a Telnet TCP/IP program to access the CLI. This requires an IP address of the unit.
Note: to display the current IP address of the unit, use the **ifconfig** command.
- If connecting via RS-232, the port settings should be set to:
Bits per second: **115200** Data bits: **8**
Parity: **None** Stop bits: **1**
Flow control: **None**
- Set your Terminal Emulation to: **VT100**

NOTE: When using Tera Term (Telnet program) TCP/IP, CLI commands will not be recognized until the following setup is completed.

- In Tera Term go to **Setup/Terminal**
- Set the **New-line/Transmit** value **CR+LF**



Log in

After successful connection, via telnet or HyperTerm, the user must login. Default Logins are:

Login: **admin**

Password: **admin123**

After successful login the prompt will be displayed as follows:

Adit 3104>

NOTE: It is recommended that you change your password from the default.

Key Enabled Software Features

The Adit 3104 has additional features that are not provided on the base system. These features can be purchased with the product or added later as needed. These features are enabled via a Software Key (example: G.729). The number of keyed features may expand with the development of the product, therefore to see a list of current keyed features, or to purchase a key, contact Carrier Access Customer Service or Sales.

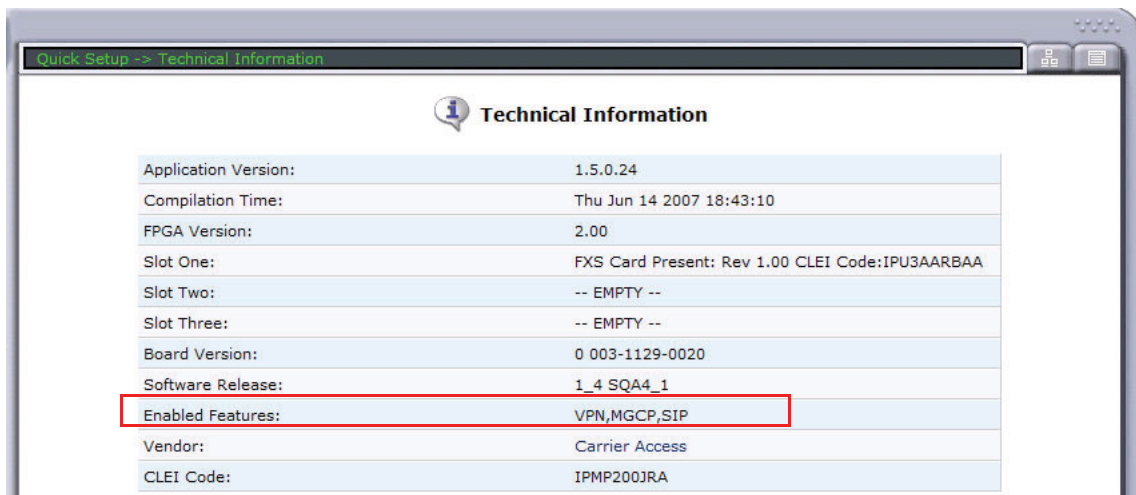
To enter a software key, use the following CLI command:

Syntax: (config)# key {key-code}

Example: (config)# key cxusdfutkj3diosn412C

NOTE: Keys may only be entered through the CLI (not through the GUI).

The Key Enabled Software Features are displayed on the **Advanced/Technical Information** window.



This information is also displayed with the following CLI command:

Adit 3104> show version

Application Version: 1.5.0.24

Compilation Time: Thu Jun 14 2007 18:43:10

FPGA Version: 2.00

Board Version: 0 003-1129-0020

IXP400 Software Release: 1_4 SQA4_1

Voice Slot 1 : FXS Card Present: Rev 1.00 CLEI Code:IPU3AARBAA

Voice Slot 2 : -- EMPTY --

Voice Slot 3 : -- EMPTY --

Vendor: Carrier Access

CLEI Code: IPMP200JRA

Product Features:

VPN enabled.

MGCP enabled.

SIP enabled.

Basic Configuration

The following configuration is divided into logical sections, where each section configures an additional function. The first must be configured before the second and so forth, however, you may stop at any section and not add the following feature.

NOTE: The order in which commands are entered can affect the successful provisioning of the Adit 3104.

- **Setup Adit for access via Web-Browser**
- **Restore Factory Defaults**
- **Modify Default Admin User**
- **Configure Ethernet WAN Interface**
- **Configure Serial1 as WAN**
- **Configure the Adit 3104 as a SIP Line Gateway**

Setup Adit for access via Web-Browser

The following steps will configure the Adit 3104 to allow access to the Web Browser for configuration, through one of the 4 10/100Base-T LAN connections.

Note: for LAN access, no additional configuration is required to access the Adit using the web browser.

To configure the WAN access:

1. Connect to the CLI via the DB-9 RS-232. See *Setting up a CLI Connection* on page 20.
2. Enable the remote admin WAN access with the following command sequence:

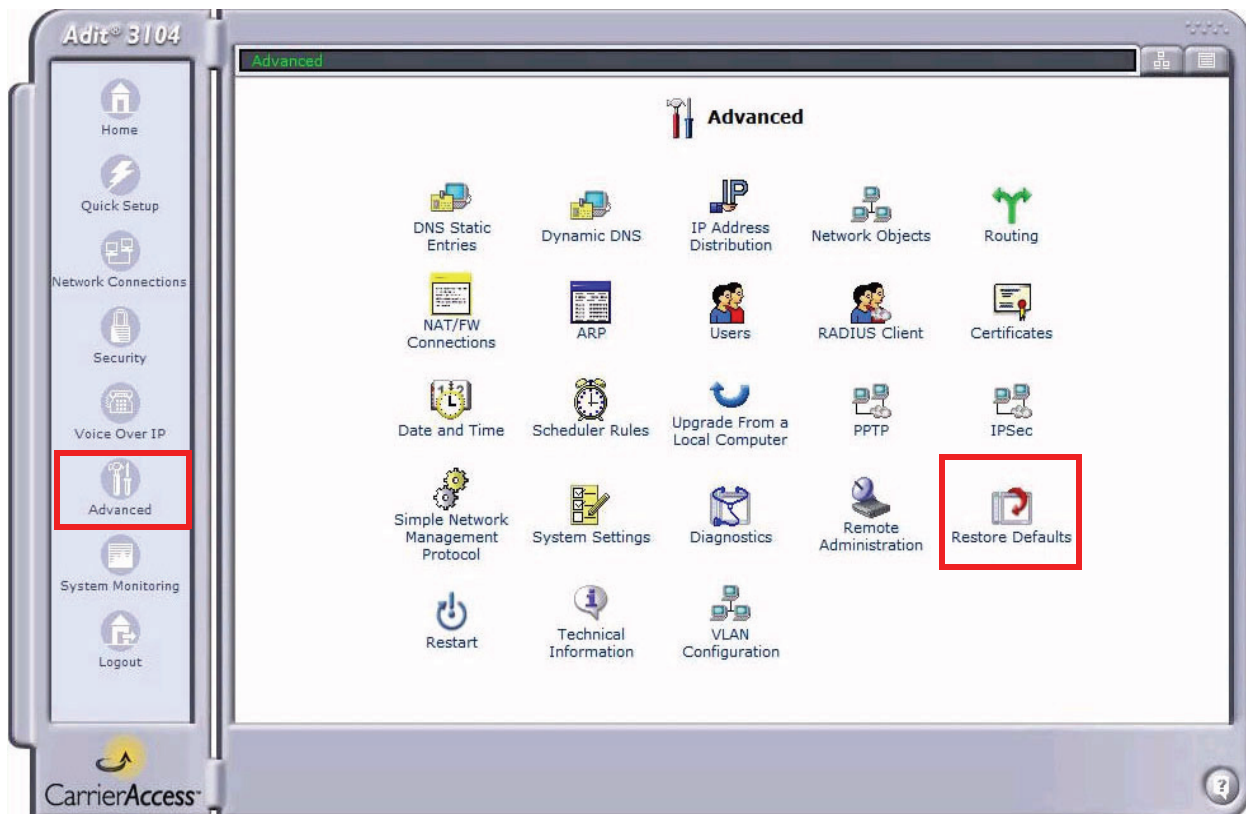
Command	Description
<code>Username: admin</code> <code>Password: *****</code>	Log into the system (username and password).
<code>Adit 3104> enable</code>	Enter the Privileged mode.
<code>Password: *****</code>	Enter password for the Privileged mode.
<code>#configure terminal</code>	Enter the Configuration mode.
<code>(config)# remote-admin web</code> <code>primary-port enable</code>	Enable remote web admin.

Restore Factory Defaults

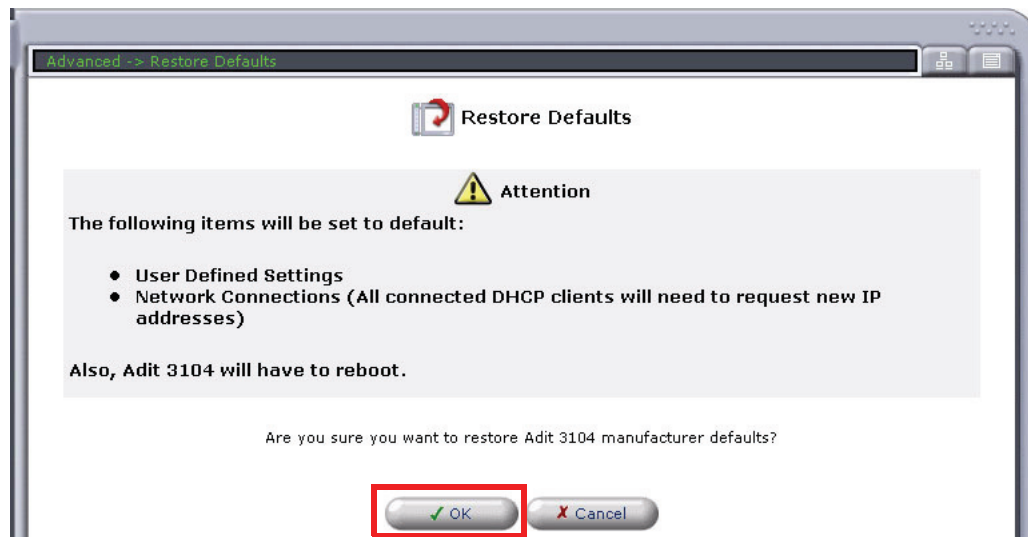
If the unit is not out-of-the-box, you may want to verify that the unit is set to defaults. Note: this will reset the IP address back to the default setting of 192.168.1.1.

In the web-browser:

- Select **Advanced** from the Navigation bar
- Select **Restore Defaults**



- Select **OK** to restore defaults

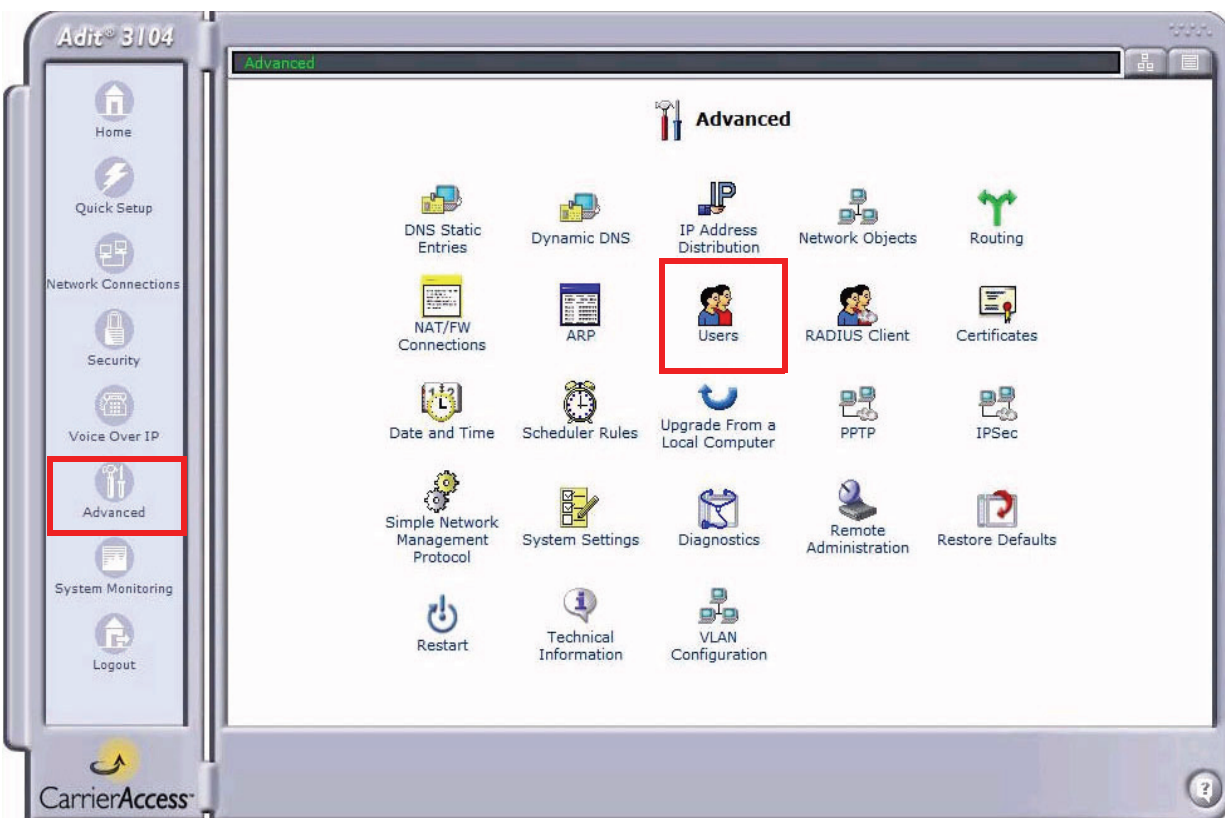


Modify Default Admin User

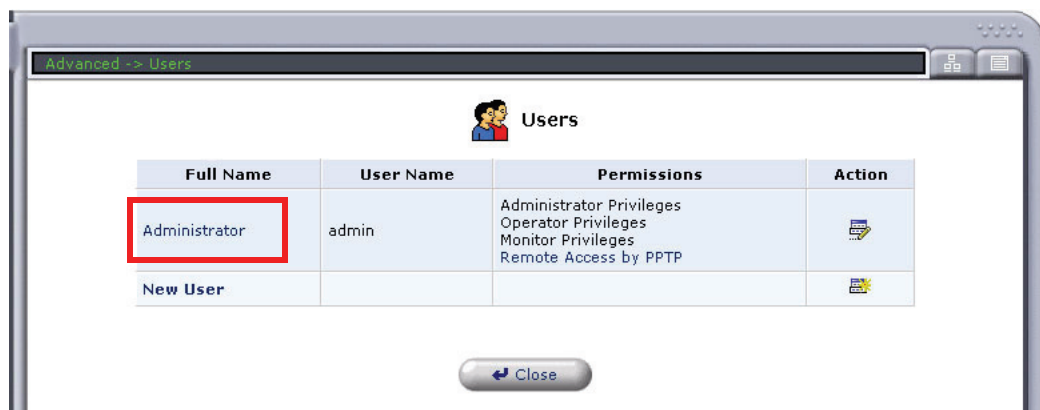
For security purposes it is recommended that the Administrator User be changed from the default settings.

Modify the Administrator User in the web-browser:

- Select **Advanced** from the Navigation bar
- Select **Users** icon

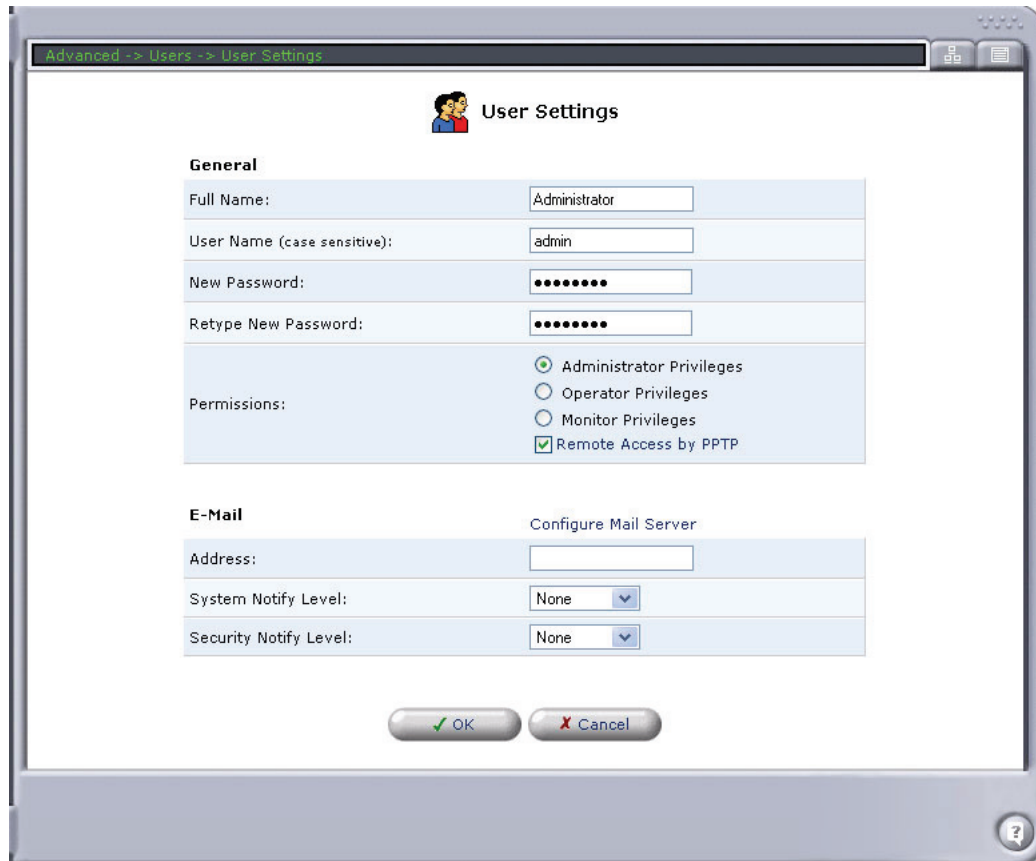


- Select **Administrator**, to open the profile.



- Modify the User information, and select **OK** to save. It is important to note that you need to have a minimum of one user with **Administrative Privileges**. For users with other access levels, add a **New User**.

Note: For security purposes, the password should be changed.



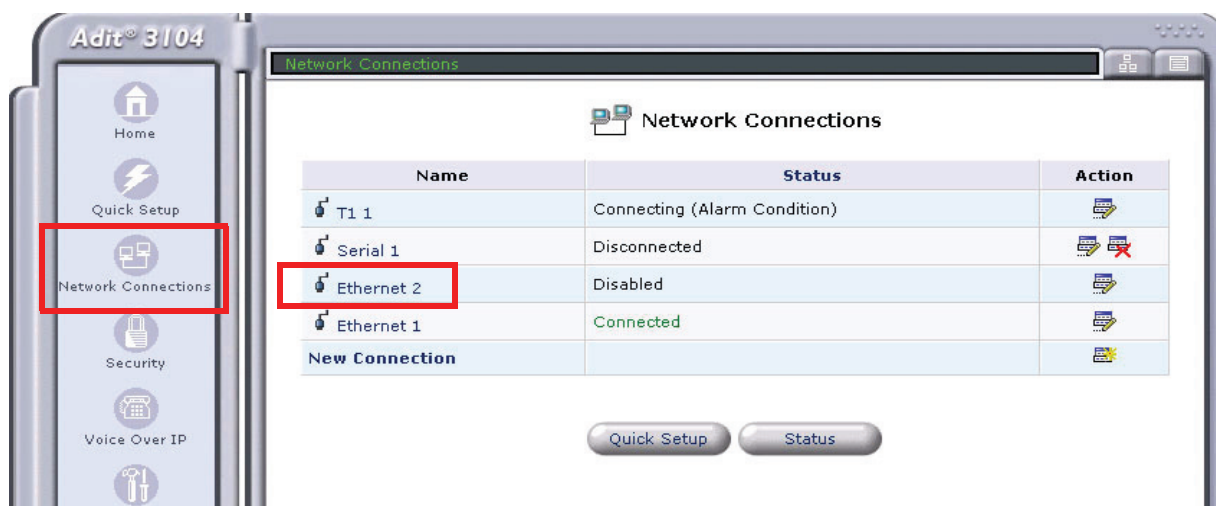
The image shows a 'User Settings' dialog box with a title bar that reads 'Advanced -> Users -> User Settings'. The dialog is divided into two main sections: 'General' and 'E-Mail'. The 'General' section contains fields for 'Full Name' (Administrator), 'User Name (case sensitive)' (admin), 'New Password' (masked with dots), and 'Retype New Password' (masked with dots). Below these is a 'Permissions' section with four radio buttons: 'Administrator Privileges' (selected), 'Operator Privileges', 'Monitor Privileges', and 'Remote Access by PPTP' (checked). The 'E-Mail' section has a 'Configure Mail Server' link, an 'Address' field, and two dropdown menus for 'System Notify Level' and 'Security Notify Level', both set to 'None'. At the bottom are 'OK' and 'Cancel' buttons. A help icon (?) is in the bottom right corner.

User Settings	
General	
Full Name:	Administrator
User Name (case sensitive):	admin
New Password:	••••••••
Retype New Password:	••••••••
Permissions:	<input checked="" type="radio"/> Administrator Privileges <input type="radio"/> Operator Privileges <input type="radio"/> Monitor Privileges <input checked="" type="checkbox"/> Remote Access by PPTP
E-Mail	
Configure Mail Server	
Address:	
System Notify Level:	None
Security Notify Level:	None
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

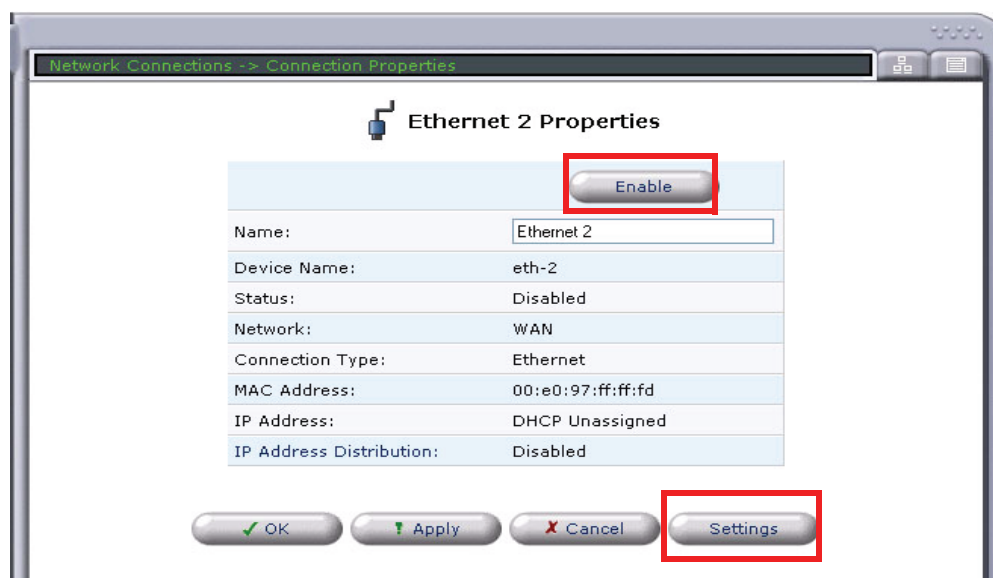
Configure Ethernet WAN Interface

In the web-browser:

1. Select **Network Connections** from the Navigation bar.
2. It is recommended that you disable/delete the Serial1 port.
3. Select (click) **Ethernet 2** (WAN Ethernet) connection to configure.



4. Select the **Enable** button, to configure the WAN Ethernet up (or in-service).
5. Select the **Settings** button.



- Set **Internet Protocol** to **Obtain an IP Address Automatically**, from the pulldown menu. This will enable the Adit 3104 as a DHCP Client. Leave the other fields to their default settings.



- Select **Apply** to apply the new settings.

Configure Serial1 as WAN

In the web-browser:

1. Select **Network Connections** from the Navigation bar.
2. Select **Serial1**.
3. Select **Settings** button.
4. Set **Network** to **WAN**.
5. Select **Apply** to apply the new settings.

The screenshot displays the Adit 3104 web interface. On the left sidebar, the 'Network Connections' menu item is highlighted with a red box. The main content area shows the 'Configure Serial 1' configuration page. The 'General' section contains the following fields:

General	
Device Name:	ser-1
Status:	Disconnected
Schedule Availability:	Always New
Network:	WAN
Connection Type:	PPPoT1
MTU:	Automatic 1500
Underlying Device:	T1 1

The 'PPP' section contains the following fields:

PPP	
PPP Authentication	
Login User Name (case sensitive):	
Login Password:	*****
<input type="checkbox"/> Support Unencrypted Password (PAP)	
<input type="checkbox"/> Support Challenge Handshake Authentication (CHAP)	
<input type="checkbox"/> Support Microsoft CHAP (MS-CHAP)	
<input type="checkbox"/> Support Microsoft CHAP Version 2 (MS-CHAP v2)	

The 'PPP Encryption' section contains the following fields:

PPP Encryption	
<input type="checkbox"/> Require Encryption (Disconnect If Server Declines)	
<input type="checkbox"/> Support Encryption (40 Bit Keys)	
<input type="checkbox"/> Support Maximum Strength Encryption (128 Bit Keys)	

The 'Internet Protocol' section contains the following fields:

Internet Protocol	
	Unnumbered

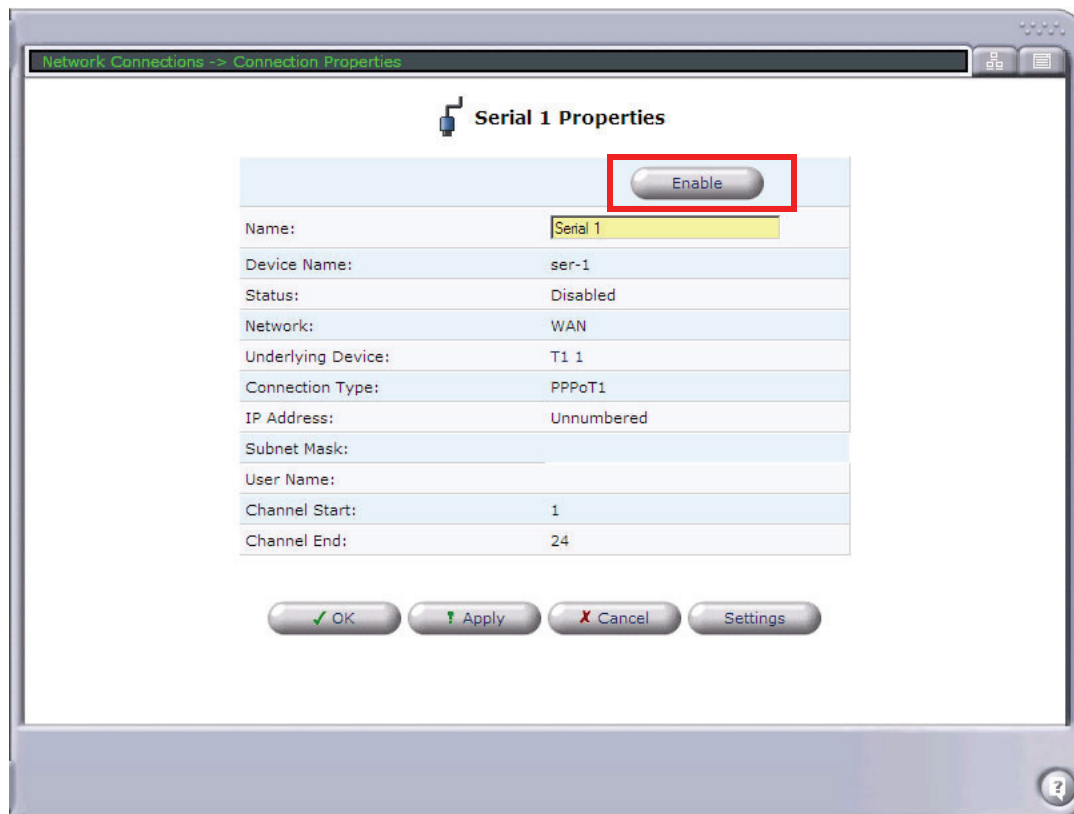
The 'DNS Static Entries' section contains the following fields:

DNS Static Entries	
	Obtain DNS Server Address Automatically

The 'Routing' section contains the following fields:

Routing	
Routing Mode:	Route
<input type="checkbox"/> SIP ALG	
Device Metric:	20
<input checked="" type="checkbox"/> Default Route	

6. Select the **Enable** button.



Configure the Adit 3104 as a SIP Line Gateway

In the web-browser:

1. Select **Voice Over IP** from the Navigation bar.
2. Select **Use SIP Proxy**.
3. Enter Softswitch IP Address, User name and Password.
4. Select applicable **Codecs**.
5. Select **Apply** to apply the new settings.

Voice Over IP

IP Telephony Phone Settings Phone Book Line Monitoring

Dialing Parameters

Dialing Timeout: 5 Seconds

Phone Number Size: 10 Digits

VoIP Signaling Protocol SIP

Audio RTP Base Port: 28000

☒ Send DTMF Out-Of-Band

SIP Transport Protocol: UDP

SIP Port: 5060

Proxy Servers

Proxy type: Generic

Enabled/Disable IP/DNS Address

☐ Use SIP Proxy 0.0.0.0

Port: 5060

☐ Use SIP Outbound Proxy 0.0.0.0

Port: 5060

Codecs

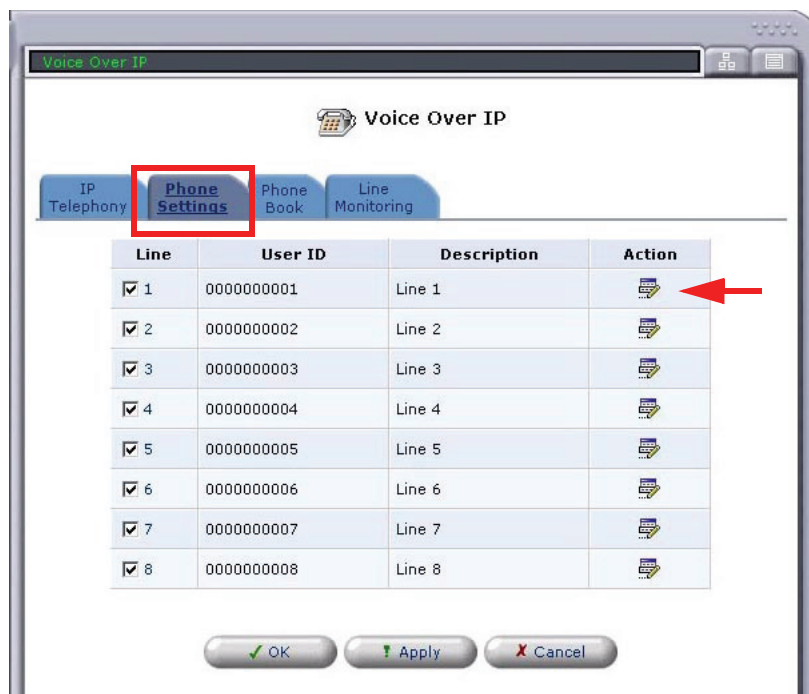
Supported Codecs Packetization Time

☒ G.711, 64kbps, u-Law 20

☒ G.711, 64kbps, A-Law 20

OK Apply Cancel Advanced >>

6. Select the **Phone Settings** tab.
7. Select the **Action** icon on line #1 to edit.



8. Enter a telephone number in the **User ID** field and select **OK**.

Line Settings

Identification

Begin Line Number: 1

End Line Number: 1

User ID: 0000000001

Description: Line 1

Packet processing

Codec Pref1: G.711u

Codec Pref2: G.711A

Codec Pref3: G.729A

Fax mode: None

Modem mode: None

Silence Suppression: ☐ Enabled

Jitter Buffer: Static

Voice processing

Transmit Gain (-12 through +6): 0

Receive Gain (-12 through +6): 0

Impedance: USA : 900 Ohms + 2.16uF

Echo cancellation: ☒ Enabled

Signaling

Protocol: LoopStart

Calling Party Disconnect (CPD): ☐ Enabled

Calling features

Call waiting: ☐ Enabled

Call waiting caller ID: ☐ Enabled

Block outgoing caller ID: ☒ Enabled

Authentication

Authentication: ☐ Enabled

Authentication User Id: 0000000001

Authentication Password:

Notes:

Not affected when line ranges used: User ID, Description, Authen. User Id and Authen. Password

OK Cancel

9. Repeat this step for each line you would like to have register with your Softswitch.

